

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
12 April 2001 (12.04.2001)

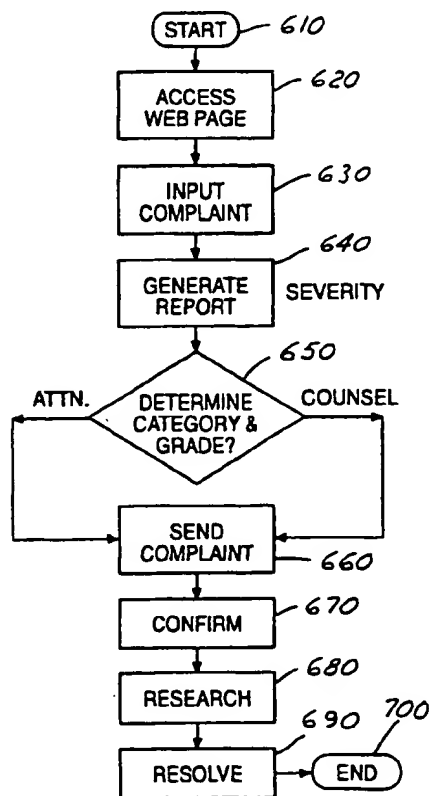
PCT

(10) International Publication Number  
**WO 01/26025 A1**

- (51) International Patent Classification<sup>7</sup>: G06F 19/00 (74) Agents: RENKE, Robert, P. et al.; Artz & Artz, P.C., 28333 Telegraph Road, Suite 250, Southfield, MI 48034 (US).
- (21) International Application Number: PCT/US00/27108
- (22) International Filing Date: ~~2 October 2000~~ (02.10.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/157,236 1 October 1999 (01.10.1999) US
- (71) Applicant (for all designated States except US): KAREN SMITH KIENBAUM & ASSOC [US/US]; 440 E. Congress, 4th Floor, Detroit, MI 48226-2917 (US).
- (71) Applicant and  
(72) Inventor: KIENBAUM, Karen, Smith [US/US]; 6 Jefferson Court, Grosse Pointe Park, MI 48230-1904 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, ~~US~~ UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: INTERNET ENABLED THIRD PARTY HUMAN RESOURCES COMPUTER SYSTEM AND METHOD



(57) Abstract: An interactive Internet enabled third party human resources computer system allows a worker to automatically file a grievance. The process begins when a worker with a grievance connects to a home page (620) run by a third party and describes their complaint. Inputting the details of the complaint is a guided process (630). The worker is presented with a succession of questions that elicit information about the complaint. The list of questions and their order is a dynamic process, using previous answers to guide the "discussion". The process continues when the completed complaint is analyzed by the system: it is categorized and graded (minor, major, potential legal liability). The system then uses the category and grade to determine which type of person (HR personnel or attorney) should be notified (650). Finally, the system manager accesses the system, and is able to arrive at the details of the complaint. At this point (680) the system manager will have links to various pieces of ancillary information from the company -HR manuals, procedures, etc. The system manager will formulate replies and actions and begin handling the complaint (690).

WO 01/26025 A1

BEST AVAILABLE COPY



**Published:**

- With international search report.
- With amended claims.

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**INTERNET ENABLED THIRD PARTY HUMAN  
RESOURCES COMPUTER SYSTEM AND METHOD**

**RELATED APPLICATIONS**

This application claims the benefit of  
5 earlier filed provisional patent application Serial  
No. 60/157,236 filed on 10/01/99 entitled, "Method  
for Employee Initiated Alternative Dispute  
Resolution.

**TECHNICAL FIELD**

10 The present invention relates generally to  
interactive computer systems, and more particularly,  
to an interactive Internet enabled third party human  
resources computer system.

**BACKGROUND ART**

15 In order to remain successful, any company  
that employs workers must have some form of human  
resources program that monitors and resolves worker  
grievances. If grievances are not handled in a fair  
and professional manner, then employees may find  
20 alternative companies for employment or seek legal  
assistance in resolving their issues. Therefore, it  
is in the best interest of companies to provide a  
means for quick and impartial resolution of any  
employee problems.

25 Typically, human resources programs are  
maintained and run by the company itself. Not only  
does this require additional manpower while incurring  
additional costs, but when employees for these  
companies have a complaint they must present their

grievance directly to someone employed by the company. Unfortunately, because of this, the perception of some employees is that the grievance process is designed to benefit the company and is not  
5 fair and impartial. This perception can result in a reduced sense of security and confidentiality, thus detracting from job performance and satisfaction. Additionally, this perception may increase the possibility of exposing the company to legal action  
10 since the employee may seek legal counsel rather than redress with the company.

In the past, employee grievances and complaints have been tracked manually. This is a tedious process subject to possible human error.  
15 Unfortunately, this manual process can occasionally result in similar grievances receiving different treatment. Disparate treatment of similar grievances is not desirable. Also, the manual process for tracking employee grievances is not easily accessible  
20 to all concerned individuals.

The disadvantages associated with these conventional human resources techniques have made it apparent that a new technique for handling employee grievances is needed. The new technique should  
25 handle employee grievances in a fair, neutral, and confidential manner. Employee concerns should also be addressed as quickly as possible. Additionally, the new technique should automate the tracking and resolution of employee grievances consistent with  
30 company policy. The new technique should also

provide real time feedback to company management.  
The present invention is directed to these ends.

#### SUMMARY OF THE INVENTION

It is, therefore, an object of the  
5 invention to provide an improved and reliable  
interactive Internet enabled third party human  
resources computer system. Another object of the  
invention is to handle employee grievances in a fair,  
neutral, and confidential manner. Additionally, an  
10 object of the invention is to automate the tracking  
and resolution of employee grievances consistent with  
company policy.

In accordance with the objects of this  
invention, an interactive Internet enabled third  
15 party human resources computer system is provided.  
In one embodiment of the invention, an interactive  
Internet enabled third party human resources computer  
system allows a worker to automatically file a  
grievance. The process begins when a worker with a  
20 grievance connects to a home page run by a third  
party and describes their complaint. Inputting the  
details of the complaint is a guided process. The  
worker is presented with a succession of questions  
that elicit information about the complaint. The  
25 list of questions and their order is a dynamic  
process, using previous answers to guide the  
"discussion". The process continues when the  
completed complaint is analyzed by the system: it is  
categorized and graded (minor, major, potential legal  
30 liability). The system then uses the category and

grade to determine which type of person (HR personnel or attorney) should be notified. Finally, the system manager accesses the system, and is able to arrive at the details of the complaint. At this point the  
5 system manager will have links to various pieces of ancillary information from the company - HR manuals, procedures, etc. The system manager will formulate replies and actions and begin handling the complaint.

10 The present invention thus achieves an improved interactive Internet enabled third party human resources computer system. The present invention is advantageous in that it provides real time feedback to company management.

15 Additional advantages and features of the present invention will become apparent from the description that follows, and may be realized by means of the instrumentalities and combinations particularly pointed out in the appended claims,  
20 taken in conjunction with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

In order that the invention may be well understood, there will now be described some embodiments thereof, given by way of example,  
25 reference being made to the accompanying drawings, in which:

FIGURE 1 is an illustration of a interactive Internet enabled third party human

resources computer in accordance with one embodiment of the present invention;

FIGURE 2 is a block diagram of an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention;

FIGURE 3 is a block diagram of a central controller for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention;

FIGURE 4 is a block diagram of a worker sphere for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention;

FIGURE 5 is a block diagram of a counselor sphere for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention; and

FIGURE 6 is a flow chart for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention.

#### BEST MODES FOR CARRYING OUT THE INVENTION

In the following figures, the same reference numerals will be used to identify identical components in the various views. The present invention is illustrated with respect to an

interactive Internet enabled third party computer system, particularly suited for human resources management. However, the present invention is applicable to various other uses that may require  
5 interactive Internet enabled third party computer systems.

Referring to FIGURE 1, an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the  
10 present invention is illustrated, designated generally as 10. As shown, interactive Internet enabled third party human resources computer system 10 can be implemented using a general purpose computer 12 that is specially programmed by a  
15 computer program 14 stored on a CD-ROM or other non-volatile storage memory 16. Computer 12 includes a CD-ROM drive 18 that it uses to access program 14 from CD-ROM 16. Computer 12 further includes two other input devices; namely, a keyboard 20 for use by  
20 the employee to input text and a mouse or other serial input device 22 that is used by the employee in conjunction with the graphical user interface provided by program 14. Computer 12 also has a number of output devices, including a computer screen  
25 or monitor 24, one or more speakers 26, and a printer 28 for printing out a grievance record 30.

In general, program 14 uses monitor 24 and may also use speaker 26 to provide the employee with an audiovisual presentation of information to submit  
30 their grievance. When a worker has a grievance or



complaint, they will access the system via computer 12 and the Internet 32. They will connect to a home page run by the present invention but customized for each company. They will login [complete with password  
5 to protect their complaint from being viewed by others] and proceed to detail their complaint.

Inputting the details of the complaint is a guided process; that is, they are presented with a succession of questions which elicits from them  
10 information about the complaint either in a binary form [yes/no] or as graded questions [on a 5 point scale how severe was ... ]. The list of questions and their order is a dynamic process, using previous answers to guide the "discussion". For instance, if  
15 in response to an initial question, the employee indicates it is a discrimination issue, they will be presented with different follow-up questions, then if they indicated it was a harassment issue. The session ends with the worker "Send"-ing the complaint  
20 to the system.

A completed complaint is analyzed by the system: it is categorized and graded (minor, major, potential legal liability). The system then uses the category and grade to determine which type of person  
25 (HR personnel or attorney) should be notified. An email or other form of contact is then initiated such that the third party system manager can process the grievance. In one alternative embodiment of the present invention, the system will attach the  
30 appropriate company policy to the email. In another

alternative embodiment of the present invention, the system will attach prior resolutions to similar grievances to the email.

The system manager accesses the system, and  
5 is able to arrive at the details of the complaint. At this point the system manager will have links to various pieces of ancillary information from the company - HR manuals, procedures, etc. The system manager formulates replies and actions, and begins  
10 handling the complaint. The process is described in detail below with reference to Figure 6. The present invention will have a Log section in the complaint for the system manager to note actions, times-date, documents created, etc.

15 Another aspect of the system is the maintenance section. This will enable the database administrator to perform many tasks, such as inputting information for new corporate clients [contacts, documents, policies, etc.], correct errors  
20 in the database and so forth.

Advantageously, all of the components of Fig. 1 except program 14 on CD-ROM 16 can be conventional components connected together in a conventional manner. For example, computer 12 can be  
25 a standard personal computer, such as a Pentium-based computer running Windows95/98/2000. The worker can, therefore, either use an existing computer or can simply purchase any one of a number of widely available compatible computers and then need only

connect to the Internet 32 using a conventional network interface.

As an alternative to CD-ROM 16, the non-volatile storage memory can comprise other types of optical disks, such as DVD, or can comprise other types of non-volatile storage memory 16 along with program 14 stored thereon together comprise a digital storage device that can be used by computer 12 to provide the automated interactive Internet enabled third party human resources computer system 10 of the present invention.

As will be appreciated by those skilled in the art, program 14 may include a number of individually executable files, libraries, audio files, video files, and other program components, all of which may be stored as individual files. It will, therefore, be understood that, as used herein, the term "program" is meant to include the executable file(s) and any libraries or other support files necessary to configure computer 12 into interactive Internet enabled third party human resources computer system 10.

Referring to FIGURE 2, a block diagram of an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention is illustrated. The system architecture is illustrated with reference to Figures 2 through 5. As shown in Figure 2, the network-based system of the present invention

comprises a worker sphere 200, a central controller 300 and at least one system manager sphere 400. In this embodiment, the program software for the present invention resides in the central controller and is  
5 accessed by the employee and/or system manager through the Internet connection 32. Each interface is connected through an Internet 32 connection using a public switched phone network, such as those provided by a local or regional telephone operating  
10 company. Connection may also be provided by dedicated data lines, cellular, Personal Communication Systems ("PCS"), microwave, or satellite networks.

15 Using the above components, the present invention provides a method and apparatus to interactively provide human resources services to employees of a company using a third party. Use of a third party for addressing employee grievances  
20 results in increased employee satisfaction and improved performance.

Referring to FIGURE 3, a block diagram of a central controller 200 for an interactive Internet enabled third party human resources computer system  
25 in accordance with one embodiment of the present invention is illustrated. Central controller 200 includes central processor (CPU) 205, cryptographic processor 210, Random Access Memory (RAM) 215, Read Only Memory (ROM) 220, payment processor 230, clock  
30 235, operating system 240, network interface 245, and data storage device 250.

A conventional personal computer or computer workstation with sufficient memory and processing capability may be used as central controller 200. In one embodiment, it operates as a web server, both receiving and transmitting data generated by workers/counselors. Central controller 200 is preferably capable of high volume transaction processing in processing communications and database searches. A Pentium-family microprocessor commonly manufactured by Intel, Inc. may be used for CPU 205. This processor employs a 32-bit architecture. Equivalent processors are also provided by Motorola or Sun Microsystems.

An MC68HC16 microcontroller, commonly manufactured by Motorola, Inc. may be used for cryptographic processor 210. Equivalent processors may also be used. This microcontroller utilizes a 16-bit multiply-and-accumulate instruction in the 16 MHz configuration and requires less than one second to perform a 512-bit RSA private key operation. Cryptographic processor 210 supports the authentication of communications from workers and employees. Cryptographic processor 210 may also be configured as part of CPU 205. Other commercially available specialized cryptographic processors include VLSI Technology's 33 MHz 6868 or Semaphore Communications' 40 MHz Roadrunner 284.

Data storage device 250 may include hard disk magnetic or optical storage units, as well as

CD-ROM drives or flash memory. Data storage device 250 contains databases used in the processing of transactions in the present invention, including company database 255, complaint database 260, resolution database 285, cryptographic key database 290, and employee records database 295. In a preferred embodiment, database software such as that manufactured by Oracle Corporation is used to create and manage these databases.

10                Company database 255 maintains data on company policies such as discrimination, ethics, health and safety, theft/whistleblower, performance, terms and conditions of employment, substance abuse, termination, leaves, pay and benefits, sexual  
15 harassment, etc. Each company generates this information. In another preferred embodiment of the present invention, company database 255 would be created and maintained by the third party responsible for supplying human resource services.

20                Complaint database 260 maintains data for each transaction associated with a particular workers complaint with fields such as name, address, phone number, date of birth, work supervisor, location, actual complaint, and tracking code. As described in  
25 more detail below, the amount and type of worker information will vary depending upon the answers to previous questions asked. The list of questions and their order is a dynamic process, using previous answers to guide the "discussion".

Resolution database 285 tracks all resolutions of previous complaints made by the workers and counselors for each company account handled by the third party HR manager. In this way,  
5 resolutions for similar complaints may be handled in a consistent manner by accessing the resolutions to previous complaints. Ideally, the system uses keywords to compile previous resolutions to problems similar to the current problem and forward them onto  
10 a system manager.

Cryptographic key database 290 facilitates cryptographic functions, storing both symmetric and asymmetric keys. These keys are used by cryptographic processor 210 for encrypting and  
15 decrypting worker and system manager data to maintain security.

Employee database 295 maintains data for each worker with fields such as name, address, phone number, date of birth, supervisor, location, race and  
20 employment data. This data may be used to assist a system manager when determining the type and severity of the complaint.

A completed complaint is analyzed by the system: it is categorized and graded (minor, major, potential legal liability). The system then uses the  
25 category and grade to determine which type of person (HR personnel or attorney) should be notified. An email or other form of contact is then initiated such that the third party system manager can process the

grievance. Alternatively, the system could process the grievance and contact the HR counselor or attorney directly. In one alternative embodiment of the present invention, the system will attach the appropriate company policy to the email. In another alternative embodiment of the present invention, the system will attach prior resolutions to similar grievances to the email.

Network interface 245 is the gateway to communicate with workers and system manager. Conventional internal or external modems or network cards may serve as network interface 245. Network interface 245 supports modems at a range of baud rates from 1200 upward, but may combine such inputs into a T1 or T3 line if more bandwidth is required. In a preferred embodiment, network interface 245 is connected with the Internet and/or any of the commercial on-line services such as America Online or Microsoft Network, allowing buyers and sellers access from a wide range of on-line connections. Several commercial electronic mail servers also include the above functionality. Alternatively, network interface 245 may be configured as a web site.

While the above embodiment describes a single computer acting as central controller 200, those skilled in the art will realize that the functionality can be distributed over a plurality of computers. In one embodiment, central controller 200 is configured in a distributed architecture, wherein the databases and processors are housed in separate



units or locations. Some controllers perform the primary processing functions and contain at a minimum RAM, ROM, and a general processor. Each of these controllers is attached to a WAN hub that serves as the primary communication link with the other controllers and interface devices. The WAN hub may have minimal processing capability itself, serving primarily as a communications router. Those skilled in the art will appreciate that an almost unlimited number of controllers may be supported. This arrangement yields a more dynamic and flexible system, less prone to catastrophic hardware failures affecting the entire system. This also provides flexibility in maintaining and upgrading the automated compliant recording available on the system.

Referring to FIGURE 4, a block diagram of a worker sphere 300 for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention is illustrated. In an exemplary embodiment, worker sphere 300 comprises a conventional personal computer which includes a processing device such as central processor (CPU) 305; RAM 315; ROM 320; clock 335; video driver 325; video monitor 330; communication port 340; input device 345, such as a keyboard, mouse, or conventional voice recognition software package; a network interface such as a modem 350; and data storage device 360. The device interfaces with central controller 200. Cryptographic processor 335

may be added for improved authentication and security as is known in the art. A Pentium-family microprocessor may be used for CPU 305. Clock 335 is a standard chip-based clock that can serve to time stamp data transmissions produced with the interface 300.

Data storage device 360 is a conventional magnetic-based or optical based hard disk storage unit. Script database 370 may be used for prompting the worker with questions relating to each grievance. In a preferred embodiment, the script database is transferred over Internet 32 from central controller 200.

There are many commercial software applications that can enable the communications required by the interface 300, the primary functionality being message creation and transmission. When central controller 200 is configured as a web server, conventional communications software such as the Netscape navigator web browser from Netscape Corporation or Internet Explorer web browser from Microsoft Corporation may also be used. The worker and counselor may use the browser to transmit data. Preferably, no proprietary software is required.

In one embodiment of the present invention, communications between workers/system managers and the system take place via electronic networks, with central controller 200 acting as a web server. When

a worker has a grievance or complaint, they will access the system via computer 12 and the Internet 32. They will connect to a home page in the form of the present invention, but customized for each  
5 company. They will login [complete with password to protect their complaint from being viewed by others] and proceed to detail their complaint as prompted.

Inputting the details of the complaint is a guided process; that is, they will be presented with  
10 a succession of questions which will elicit from them information about the complaint either in a binary form [yes/no] or as graded questions [on a 5 point scale how severe was ... ]. The list of questions and their order is a dynamic process, using previous  
15 answers to guide the 'discussion'. The session ends with the worker 'Send'-ing the complaint to the system.

Although this procedure works well in a low security environment, it can be significantly  
20 improved through the use of cryptographic protocols. These protocols not only enhance the ability to authenticate the sender of a message, but also serve to verify the integrity of the message itself, proving that it has not been altered during  
25 transmission. Encryption can also prevent eavesdroppers from learning the contents of the message. The practice of using cryptographic protocols to ensure the authenticity of senders as well as the integrity of messages is well-known in  
30 the art and need not be described here in detail.

Depending upon the encryption desired, cryptographic processors 210, 310 might be required. Preferably, however, Encryption Software such as is known in the art is used to provide sufficient security and integrity assurances.

Referring to FIGURE 5, a block diagram of a system manager sphere 400 for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention is illustrated. System manager sphere 400 includes the administrative personnel at the third party HR organization who act as a gatekeeper, and the attorneys / HR counselors. In an exemplary embodiment, counselor sphere 400 comprises a conventional personal computer which includes a processing device such as central processor (CPU) 405; RAM 415; ROM 420; clock 435; video driver 425; video monitor 430; communication port 440; input device 445, such as a keyboard, mouse, or conventional voice recognition software package; a network interface such as a modem 450; and data storage device 460. The device interfaces with central controller 200. Cryptographic processor 435 may be added for improved authentication and security as is known in the art. A Pentium-family microprocessor may be used for CPU 405. Clock 435 is a standard chip-based clock that can serve to time stamp data transmissions produced with the interface 400.

Data storage device 460 is a conventional magnetic-based or optical based hard disk storage unit. Email database 470 contains messages generated by central controller 200. In a preferred  
5 embodiment, the central controller 200 will include a severity rating as well as grievance type and the full complaint.

There are many commercial software applications that can enable the communications  
10 required by the interface 400, the primary functionality being message creation and transmission. When central controller 200 is configured as a web server, conventional communications software such as the Netscape  
15 navigator web browser from Netscape Corporation or Internet Explorer web browser from Microsoft Corporation may also be used. The worker and system manager may use the browser to transmit data. Preferably, no proprietary software is required.

20 In one embodiment of the present invention, communications between workers/system managers and the system take place via electronic networks, with central controller 200 acting as a web server. The system manager accesses the system, and is able to  
25 arrive at the details of the complaint. At this point the system manager will have links to various pieces of ancillary information from the company - HR manuals, procedures, etc. The system manager formulates replies and actions, and begins handling  
30 the complaint. The process is described in detail

below with reference to Figure 6. The present invention will have a Log section in the complaint for the system manager to note actions, times-date, documents created, etc.

5 Another aspect of the system is the maintenance section. This will enable the database administrator to perform many tasks, such as inputting information for new corporate clients [contacts, documents, policies, etc.], correct errors  
10 an the database and so forth.

Although this procedure works well in a low security environment, it can be significantly improved through the use of cryptographic protocols. These protocols not only enhance the ability to  
15 authenticate the sender of a message, but also serve to verify the integrity of the message itself, proving that is has not been altered during transmission. Encryption can also prevent eavesdroppers from learning the contents of the  
20 message. The practice of using cryptographic protocols to ensure the authenticity of senders as well as the integrity of messages is well-known in the art and need not be described here in detail. Depending upon the encryption desired, cryptographic  
25 processors 210, 310 might be required. Preferably, however, Encryption Software such as is known in the art is used to provide sufficient security and integrity assurances.

Referring to FIGURE 6, a flow chart for an interactive Internet enabled third party human resources computer system in accordance with one embodiment of the present invention is illustrated.

5 The process begins with step 610 and immediately proceeds to step 620. In step 620, when a worker has a grievance or complaint, they will access the system via computer 12 and the Internet 32. They will connect to a home page run by the third party HR  
10 management firm in accordance with the present invention but customized for each company. The sequence then proceeds to step 630, where the employee will login [complete with password to protect their complaint from being viewed by others]  
15 and proceed to detail their complaint.

Inputting the details of the complaint is a guided process; that is, they will be presented with a succession of questions which will elicit from them information about the complaint either in a binary  
20 form [yes/no] or as graded questions [on a 5 point scale how severe was ... ]. The list of questions and their order is a dynamic process, using previous answers to guide the "discussion". The session ends with the worker "Send"-ing the complaint to the  
25 system and the sequence proceeds to step 640.

In step 640, the completed complaint is analyzed by the system: it is categorized and graded (minor, major, potential legal liability). The system then uses the category and grade to determine  
30 which type of person (HR personnel or attorney)

should be notified. An email or other form of contact is then initiated such that the third party system manager can process the grievance. The third party system manager accesses the system and is presented with the grievances received for each company account associated with the system. Each complaint will indicate from the interactive initial session the type, severity, and proper personnel to address the complaint. The system manager then forwards the complaint to the proper person to address the complaint, i.e., HR manager or attorney.

Alternatively, the system could process the grievance and contact the HR counselor or attorney directly. Ideally this process is automated. If the system determines that an attorney is required, for example, then an email can be sent directly to an attorney in step 660. Otherwise, if the system determines that a counselor is required, then an email is sent directly to an HR counselor in step 660. The system manager addresses the grievance by investigating the information provided by the employee at the initial session. Preferably, the system manager notifies the employee that the grievance is being investigated. Notice preferably is written 24 hours of receiving the complaint and can be by telephone, facsimile, e-mail, or any other conventional method.

After the email is sent in step 660, the sequence proceeds to step 670. In this way, the system manager acts as a gatekeeper for centrally



accumulating an recording employee initiated complaints and directing the proper personnel to address the matter. The system manager also confirms with the employee that their grievance is being promptly addressed. At the same time, the proper personnel is immediately notified and can begin to address the complaint. In the case of very serious matters or patterns of complaints, the company can be promptly notified. Ideally the function of gatekeeper is completely automated.

In an alternative embodiment of the present invention, the system attaches the appropriate company policy relevant to the current grievance to the email. In another alternative embodiment of the present invention, the system attaches prior resolutions to similar grievances to the email

In step 670, the counselor or attorney logs into the system, and will be able to arrive at the details of the complaint. The counselor or attorney will then determine if the routing was proper. If the routing was proper then the sequence will proceed to step 680, where the counselor will begin researching the complaint. To assist the counselor links to various pieces of ancillary information from the company - HR manuals, procedures, etc. are provided. In step 690, the counselor will formulate replies and actions and begin handling the complaint. The present invention will have a Log section in the complaint for the counselor to note actions, times-

date, documents created, etc. Once the complaint is resolved, the sequence proceeds to step 700 and ends.

The present invention thus achieves an improved and reliable interactive Internet enabled third party human resources computer system by using an expert system to automate the human resources process. In this way, the present invention handles employee grievances in a fair, neutral, and confidential manner. Additionally, the present invention automates the tracking and resolution of employee grievances consistent with company policy. Also, the present invention provides real time feedback to company management.

From the foregoing, it can be seen that there has been brought to the art a new and improved human resources system. It is to be understood that the preceding description of the preferred embodiment is merely illustrative of some of the many specific embodiments that represent applications of the principles of the present invention. Clearly, numerous and other arrangements would be evident to those skilled in the art without departing from the scope of the invention as defined by the following claims:

What is claimed is:

1           1. An interactive Internet enabled third  
2 party human resources computer system, comprising:

3           a worker sphere connected to a  
4 network, the worker sphere having at least one input  
5 device for use by a worker to provide input to the  
6 interface and a screen for displaying information to  
7 the worker; and

8           a server connected to the network in  
9 operative communication with the worker sphere, the  
10 server including a program stored in memory and  
11 accessible by the worker sphere;

12           the interface being operable under control  
13 of the program to present information concerning a  
14 worker grievance via the screen, to request input  
15 from the worker via the input device, and to  
16 determine from the input whether the severity and  
17 type of grievance presented; and

18           the interface further being operable under  
19 control of the program to forward said worker  
20 grievance to a system manager sphere based upon said  
21 input from said worker, whereby said interface  
22 determines if said grievance is sent to a counselor,  
23 and whereby said interface determines if said  
24 grievance is sent to an attorney.

1           2. The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface is further operable under  
4 control of the program to determine severity said  
5 grievance.

1                   3.    The interactive Internet enabled third  
2 party human resources computer system of claim 2,  
3 wherein the interface is further operable under  
4 control of the program to provide the worker with  
5 repeated questions in an order determined by how said  
6 questions are answered.

1                   4.    The interactive Internet enabled third  
2 party human resources computer system of claim 2,  
3 wherein the interface is further operable under  
4 control of the program to generate a summary report.

1                   5.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface is a computer and the network  
4 is the internet.

1                   6.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface categorizes said complaint.

1                   7.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface rates a severity of said  
4 complaint.

1                   8.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface assigns a person to said  
4 complaint.

1           9. The interactive Internet enabled third  
2 party human resources computer system of claim 8,  
3 wherein said person is an HR manager.

1           10. The interactive Internet enabled third  
2 party human resources computer system of claim 8,  
3 wherein the interface said person is an attorney.

1           11. The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface routes said employee initiated  
4 complaint.

1           12. The interactive Internet enabled third  
2 party human resources computer system of claim 11,  
3 wherein said routing is done by a system manager.

1           13. The interactive Internet enabled third  
2 party human resources computer system of claim 12,  
3 wherein said system manager determines what personnel  
4 should be routed said complaint.

1           14. The interactive Internet enabled third  
2 party human resources computer system of claim 11,  
3 wherein said routing is done by an automated system.

1           15. The interactive Internet enabled third  
2 party human resources computer system of claim 14,  
3 wherein said automated system determines what  
4 personnel should be routed said complaint

1           16. A method of resolving complaints  
2 between an employee and an employer, comprising the  
3 steps of:

4           receiving an employee initiated complaint  
5    at a third party organization;  
6           processing said complaint; and  
7           intermediating between said employee and  
8    said employer to resolve said complaint.

1           17. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 16, further comprising the step of providing a  
4    network for said employee to fill out said employee  
5    initiated complaint.

1           18. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 17, wherein said network is the Internet.

1           19. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 16, further comprising the step of providing a  
4    network to receive said employee initiated complaint.

1           20. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 19, wherein said network is the Internet.

1           21. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 16, wherein the step of processing said  
4    complaint comprises categorizing said complaint.

1           22. The method of resolving complaints  
2    between an employee and an employer as recited in  
3    claim 16, wherein the step of processing said

4 complaint comprises rating a severity of said  
5 complaint.

1           23. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 16, wherein the step of processing said  
4 complaint comprises assigning a person to said  
5 complaint.

1           24. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 23, wherein said person is an HR manager.

1           25. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 23, wherein said person is an attorney.

1           26. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 16, further comprising routing said employee  
4 initiated complaint.

1           27. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 26, wherein said routing is done by a system  
4 manager.

1           28. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 27, wherein said system manager determines what  
4 personnel should be routed said complaint.

1           29. The method of resolving complaints  
2 between an employee and an employer as recited in

3 claim 26, wherein said routing is done by an  
4 automated system.

1           30. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 29, wherein said automated system determines  
4 what personnel should be routed said complaint

1           31. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 16, wherein said step of intermediating  
4 comprises providing a binding resolution to said  
5 employee.

1           32. The method of resolving complaints  
2 between an employee and an employer as recited in  
3 claim 16, wherein said step of intermediating  
4 comprises providing a binding resolution to said  
5 employer.



-31-

**AMENDED CLAIMS**

[received by the International Bureau on 9 March 2001 (09.03.01);  
original claims 1, 2, 5 and 17 amended;  
remaining claims unchanged (3 pages)]

**What is claimed is:**

- 1                   1.    An interactive Internet enabled third  
2 party human resources computer system, comprising:  
3                    a worker sphere connected to a  
4 network, the worker sphere having at least one input  
5 device for use by a worker to provide input to the  
6 interface and a screen for displaying information to  
7 the worker; and  
8                    a server connected to the network in  
9 operative communication with the worker sphere, the  
10 server including a program stored in memory and  
11 accessible by the worker sphere;  
12                   the interface being operable under control  
13 of the program to present information concerning a  
14 worker grievance via the screen, to request input  
15 from the worker via the input device, and to  
16 determine from the input a type of grievance  
17 presented; and  
18                   the interface further being operable under  
19 control of the program to forward said worker  
20 grievance to a system manager sphere based upon said  
21 input from said worker, whereby said interface  
22 determines if said grievance is sent to a counselor,  
23 and whereby said interface determines if said  
24 grievance is sent to an attorney.

- 1                   2.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface is further operable under  
4 control of the program to determine a severity of  
5 said grievance.

1           3.    The interactive Internet enabled third  
2 party human resources computer system of claim 2,  
3 wherein the interface is further operable under  
4 control of the program to provide the worker with  
5 repeated questions in an order determined by how said  
6 questions are answered.

1           4.    The interactive Internet enabled third  
2 party human resources computer system of claim 2,  
3 wherein the interface is further operable under  
4 control of the program to generate a summary report.

1           5.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface is a computer and the network  
4 is the Internet.

1           6.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface categorizes said complaint.

1           7.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface rates a severity of said  
4 complaint.

1           8.    The interactive Internet enabled third  
2 party human resources computer system of claim 1,  
3 wherein the interface assigns a person to said  
4 complaint.

1           9.    The interactive Internet enabled third  
2 party human resources computer system of claim 8,  
3 wherein said person is an HR manager.

7                   intermediating between said employee and  
8   said employer to resolve said complaint.

1                   17. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 16, further comprising the step of providing a  
4   network for said employee to record said employee  
5   initiated complaint.

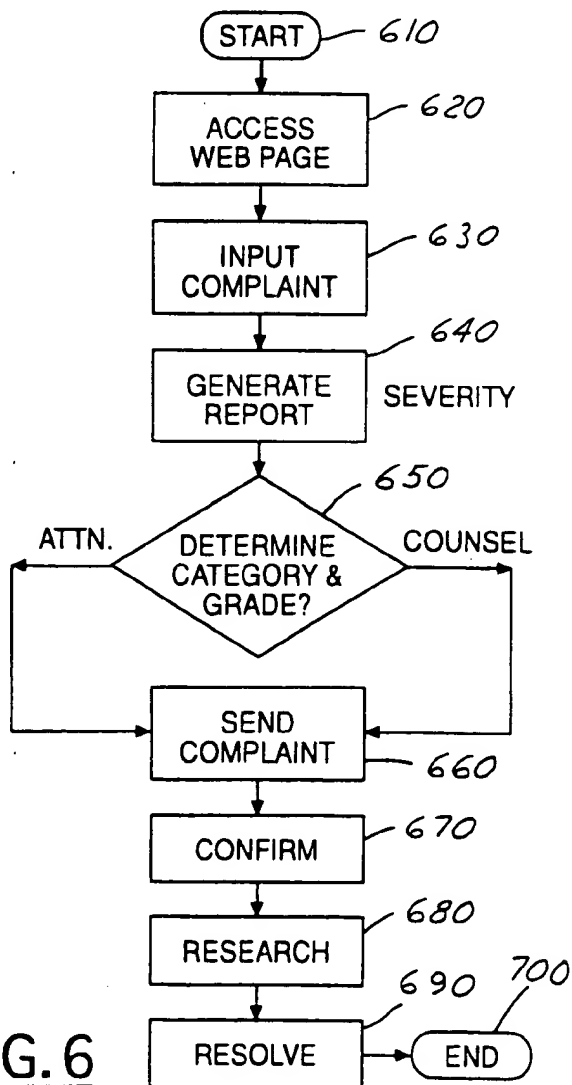
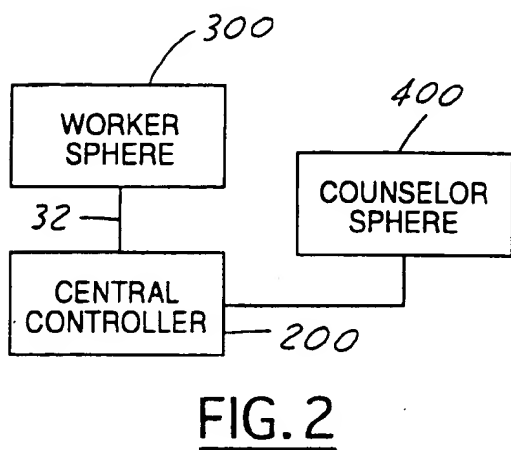
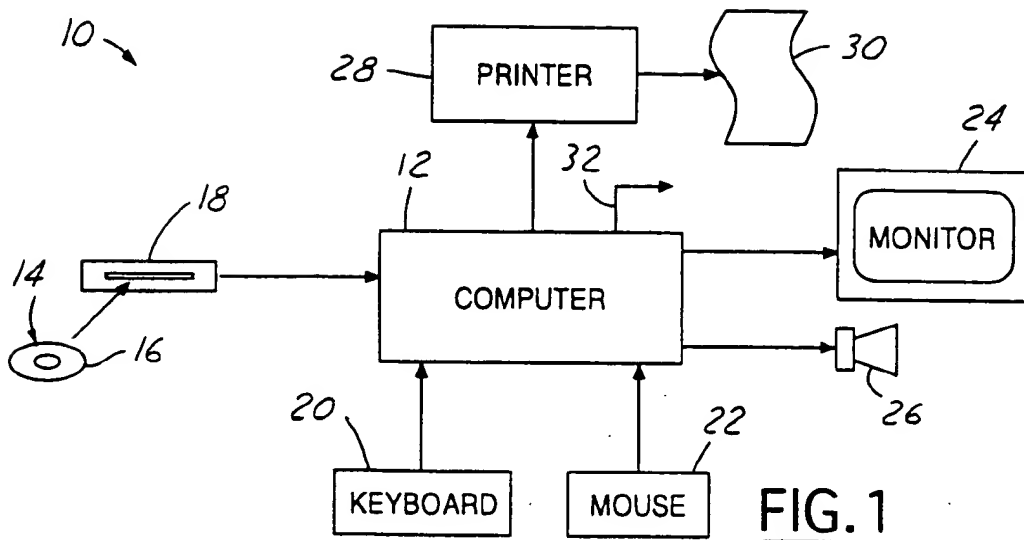
1                   18. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 17, wherein said network is the Internet.

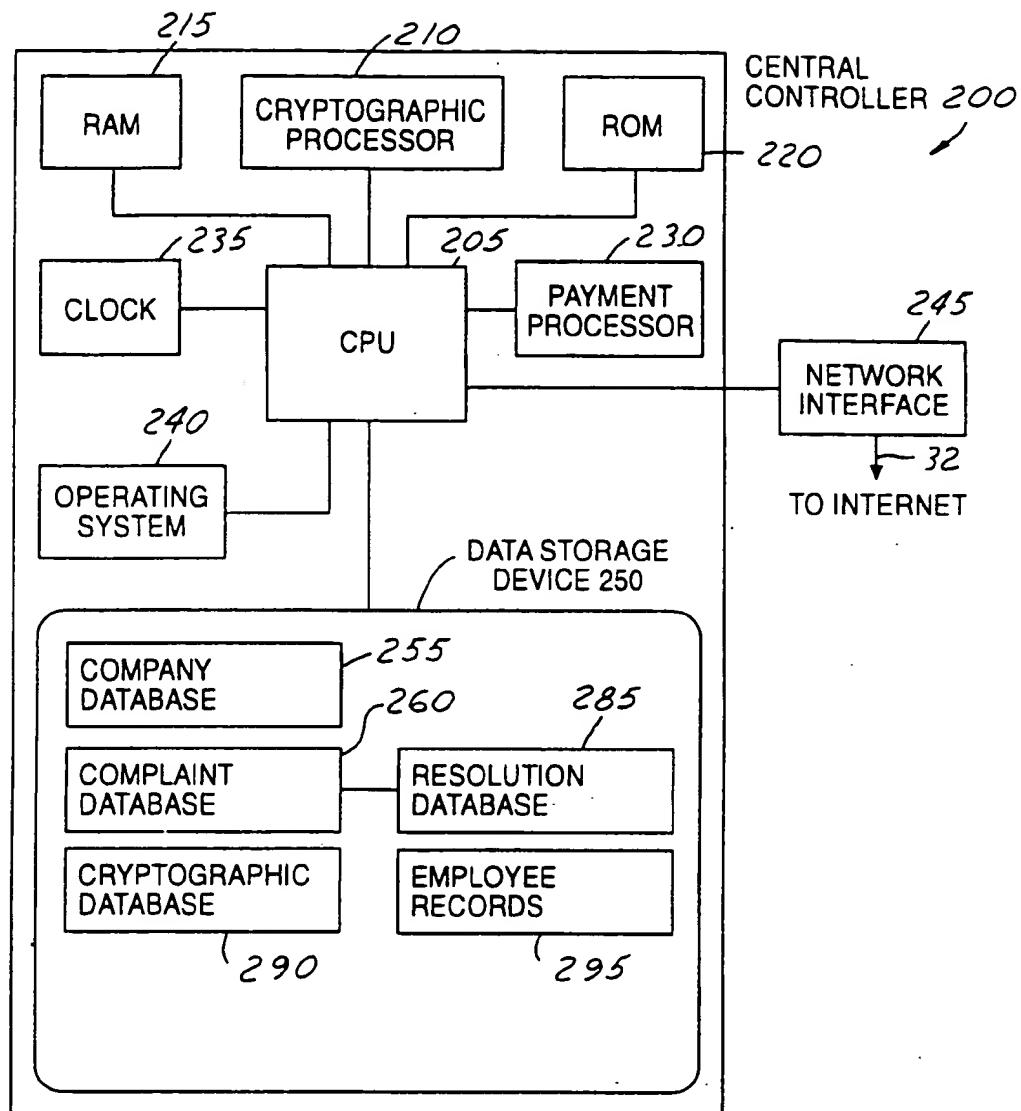
1                   19. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 16, further comprising the step of providing a  
4   network to receive said employee initiated complaint.

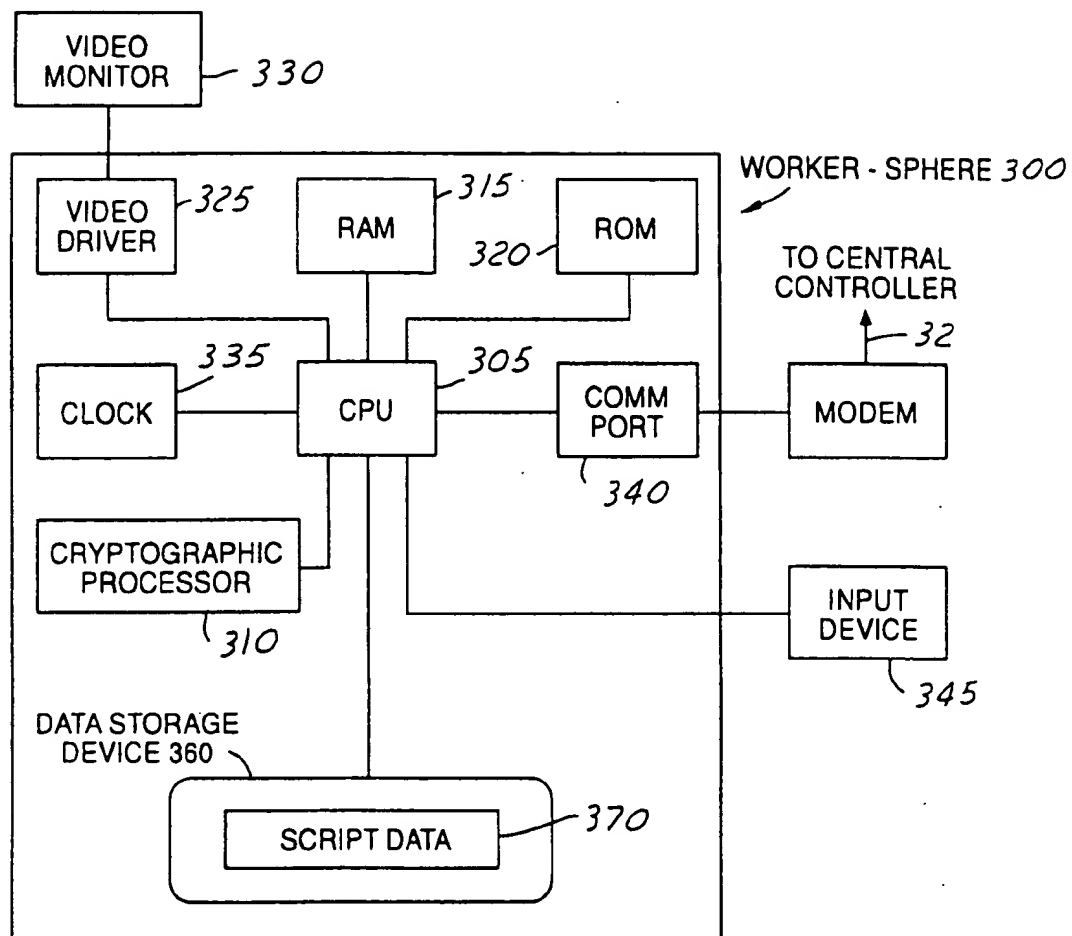
1                   20. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 19, wherein said network is the Internet.

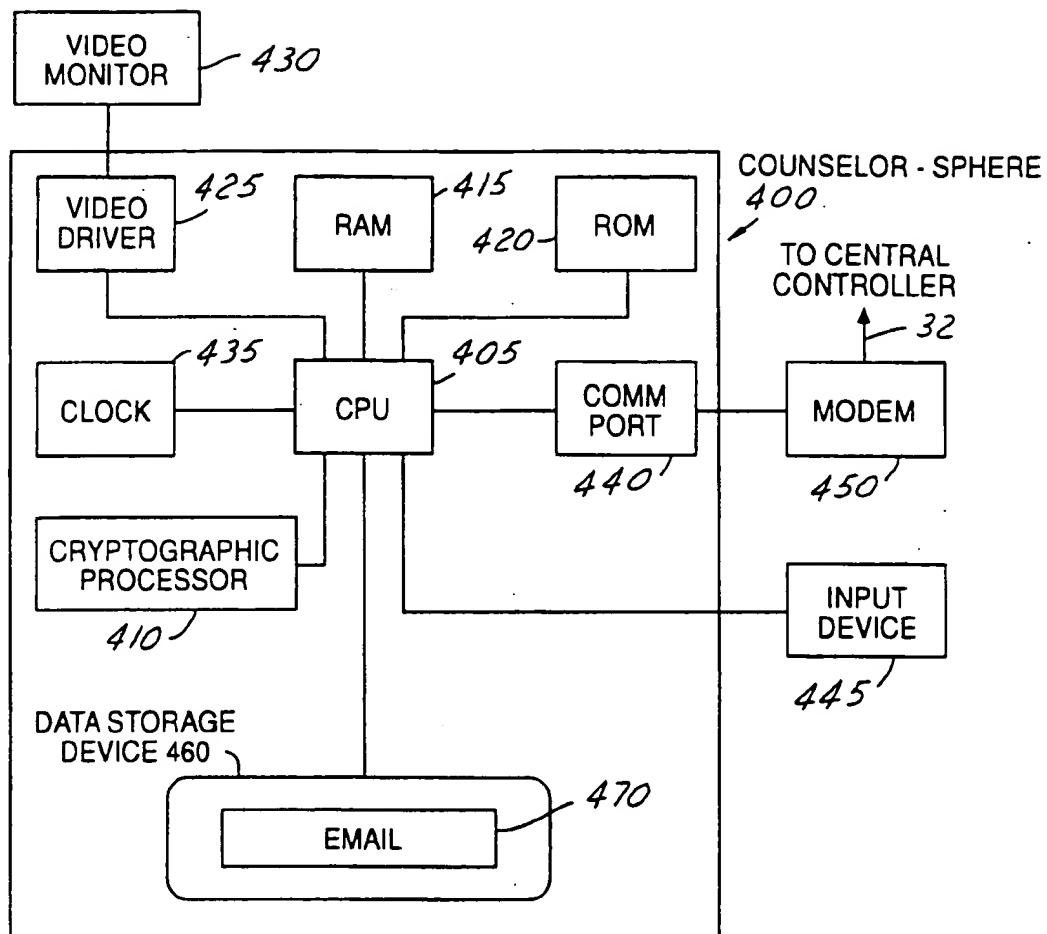
1                   21. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 16, wherein the step of processing said  
4   complaint comprises categorizing said complaint.

1                   22. The method of resolving complaints  
2   between an employee and an employer as recited in  
3   claim 16, wherein the step of processing said  
4   complaint comprises rating a severity of said  
5   complaint.



FIG. 3

FIG. 4

**FIG. 5**

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/27108

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : G06F 19/00

US CL : 705/1

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/1,2,4,11

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,895,450 A (SLOO) 20 April 1999 (20.04.1999), see abstract	1-32
Y	US 5,668,953 A (SLOO) 16 September 1997 (16.09.1997), abstract	1-32
Y	US 5,884,032 A (BATEMAN et al.) 16 March 1999 (15.03.1999), abstract.	1-32

☐ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;"

document member of the same patent family

Date of the actual completion of the international search

05 December 2000 (05.12.2000)

Date of mailing of the international search report

09 JAN 2001

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks

Box PCT

Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Dung Dinh *James R. Matthews*  
Telephone No. 305 9600

Form PCT/ISA/210 (second sheet) (July 1998)



**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

---

**BEST AVAILABLE IMAGES**

---

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☒ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**